

REMARKS

In view of the above amendments and following remarks, reconsideration and further examination are requested.

The title suggested by the Examiner has been adopted.

The specification and abstract have been reviewed and revised to make editorial changes thereto and generally improve the form thereof, and a substitute specification and abstract are provided. No new matter has been added by the substitute specification and abstract.

Claims 1-6 have been canceled and claims 7-26 have been added.

The instant invention pertains to a container for accomodating folded papers placed one upon another, and having an opening portion for allowing the papers to be removed from the container. Such a container is generally known in the art, but suffers from drawbacks expressed on pages 1-2 of the original specification. Applicant has addressed and resolved these drawbacks by providing a unique container for holding and allowing removal of papers therefrom.

Specifically, as shown in Figs. 3 and 4, for example, the opening portion of the container is formed by use of a waved blade cutting tool having a corrugated edge defining a plurality of crests and valleys, with a pitch between adjacent crests being within a range of from 0.1mm to 3.0mm. By using such a blade to form the opening portion, an opening is defined by opposing corrugated edges, each including crests and valleys with a pitch between adjacent crests being within a range of from 0.1mm to 3.0mm. Providing an opening defined by such opposing corrugated edges assures ease of opening the opening portion, prevents fingers from being injured when removing paper from the container, provides a sufficient capability of holding a paper when a preceding paper has been removed, and avoids damage to a paper being removed from the container due to its contact with the opposing edges. That is, if the corrugated edges have a pitch of less than 0.1mm the capability of adequately holding a paper upon removal of a preceding paper is insufficient, and if the pitch exceeds 3.0mm, the degree of engagement of the opposing edges with a paper during its removal is too high, resulting in damage to the paper.

Claims 7-26 have been drafted taking into account the 35 U.S.C. § 112, second

paragraph, issues raised by the Examiner, are believed to be free of these issues, and are otherwise believed to be in compliance with 35 U.S.C. § 112, second paragraph.

Claims 1-4 were rejected under 35 U.S.C. § 102(b) as being anticipated by Harwood, and claims 5 and 6 were indicated to be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112, second paragraph. The indication of allowable subject matter is greatly appreciated, and accordingly, claims 5 and 6 have been rewritten as new claims 16-26. Thus, claims 16-26 should be allowed for the same reasons that claims 5 and 6 were found to contain allowable subject matter.

The rejection of claims 1-4 is respectfully traversed and Harwood is not believed to be applicable with regard to newly added claims 7-15 for the following reasons.

Each of claims 1-4 require a cut

formed with a waved blade cutting tool which blade portion has a pitch of 0.1mm to 3.0mm.

This limitation has not been addressed by the Examiner and it adds a structural feature to the container. In this regard, a container cut by such a tool will result in opposing edges having the same configuration as the cutting tool. Thus, each of claims 1-4 require a cut defined by opposing edges having a waved configuration with a pitch of 0.1 to 3.0mm.

To the contrary, in Harwood, opposing edges of the opening 20 are not disclosed to have such a configuration. Accordingly, claims 1-4 are not anticipated by Harwood.

In any event, in order to more directly recite the configuration of the opposing edges of the cut, claims 1-4 have been cancelled and claims 7-15 have been added. These new claims recite

opposing corrugated edges including crests and valleys with a pitch between adjacent ones of said crests being within a range of from 0.1mm to 3.0mm.

As explained previously, Harwood fails to disclose or suggest opposing edges of opening 20 having such a configuration, and accordingly, new claims 7-15 are also allowable over Harwood.

In view of the above amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and an early Notice of Allowance is earnestly solicited.

If after reviewing this Amendment, the Examiner believes that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the Applicant's undersigned representative by telephone to resolve such issues.

Respectfully submitted,

Yuzo SAKAMOTO

By: 
Joseph M. Gorski
Registration No. 46,500
Attorney for Applicant

JMG/nka
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
March 21, 2006



Version with Markings to
Show Changes Made

PAPER-CONTAINER ADAPTED TO DISPENSE PAPER

Field Of The Invention

The present invention relates to a paper container for accommodating a number of
5 papers or the like, such as tissue papers, that are placed one upon another, being folded,
and are successively taken outremoved from the paper container.

Background Of The Invention

Conventionally, as a paper container for accommodating a number of papers or the
10 like, such as tissue papers, that are placed one upon another, being folded, a paper
container as disclosed in the patent Patent documents Documents 1, for example, has
been proposed.

With the container for tissue papers as disclosed in the patent documents Patent
Documents 1, an opening portion is provided in the-a top wall of the container, and a
15 plastic film is attached to the opening portion for closing it, with the film being
provided with perforations for taking outremoving a tissue paper.

However, the container for tissue papers as disclosed in the patent documents Patent
Documents Patent Documents 1 is configured such that a plastic film is attached to the
opening portion, and thus, in manufacturing, there is the-a need for preparing the plastic
20 film, and attaching it to the opening portion, which increases the-manufacturing cost,
and when the container for tissue papers is to be discarded as a used one, the plastic film
must be peeled from the container for tissue papers, sorted, and discarded, from the-a
viewpoint of the-environmental protection; therefore a problem of the-a user being
requested to make extra work arises.

25 Patent Documents 1

Having been developed in consideration of the this conventional situation, the present invention eliminates the a need for using a plastic film, which is used with the 5 above-mentioned conventional container for tissue papers, and is intended to provide a paper container comprising a high-performance opening portion which offers excellent operability in taking outremoving a paper or the like, such as a tissue paper, and yet eliminates the a possibility of the a user's fingers being accidentally injured in taking outremoving a the paper or the like, such as a tissue paper, in opening or unsealing the 10 paper container, and that of the paper or the like, such as a tissue paper, being damaged when it is taken outremoved from the paper container.

Summary Of The Invention

The paper container as claimed in Claim 1 in accordance with a first aspect of the 15 invention provides a paper container comprising: a container main body for accommodating a number of papers or the like, such as tissue papers, that are placed one upon another, being folded; and an opening portion for taking outsaidremoving the paper or the like that is formed by cutting a part of the a top of the container main body, wherein
20 a cut constituting said the opening portion is formed with a waved blade (corrugated) cutting tool which whose blade portion has a pitch of 0.1 mm to 3.0 mm.

The paper container as claimed in Claim 2 in accordance with a second aspect of the invention provides a paper container comprising: a container main body for 25 accommodating a number of papers or the like, such as tissue papers, that are placed

one upon another, being folded; and an opening portion for ~~taking out said~~removing the paper or the like that is formed by cutting a part of ~~the-a~~ top of the container main body, wherein

5 a cut constituting ~~said-the~~ opening portion is formed with a waved blade (corrugated) cutting tool ~~which~~whose blade portion has a pitch of 0.1 mm.

The paper container as claimed in Claim 3 in accordance with a third aspect of the invention provides a paper container comprising: a container main body in the form of a rectangular parallelepiped that accommodates a number of papers or the like, such as 10 tissue papers, that are placed one upon another, being folded; and an opening portion for ~~taking out said~~removing the paper or the like that is formed by cutting a part of ~~the-a~~ top of the container main body, wherein

15 ~~said-the~~ opening portion is composed of: a pair of up and down movable flaps which are formed around a cut in ~~the-a~~ middle area; a pair of creases which are formed at the rear ends of the pair of up and down movable flaps, i.e., in the areas opposite to ~~said-the~~ cut in the middle area; and cuts which are formed by connecting the right and left ends of ~~said-the~~ cut in the middle area with the right and left ends of ~~said-the~~ pair of creases, and

20 the respective cuts constituting ~~said-the~~ opening portion isare formed with a waved blade (corrugated) cutting tool ~~which~~whose blade portion has a pitch of 0.1 mm to 3.0 mm.

25 The paper container as claimed in Claim 4 in accordance with a fourth aspect of the invention provides a paper container comprising: a container main body in the form of a rectangular parallelepiped that accommodates a number of papers or the like, such as

tissue papers, that are placed one upon another, being folded; and an opening portion for ~~taking out said removing~~ the paper or the like that is formed by cutting a part of ~~the-a~~ top of the container main body, wherein

5 said ~~the~~ opening portion is composed of a pair of up and down movable flaps which are formed around a cut in ~~the-a~~ middle area; a pair of creases which are formed at the rear ends of the pair of up and down movable flaps, i.e., in ~~the~~ areas opposite to ~~said~~ ~~the~~ cut in the middle area; and cuts which are formed by connecting the right and left ends of ~~said~~ ~~the~~ cut in the middle area with the right and left ends of ~~said~~ ~~the~~ pair of creases, and

10 the respective cuts constituting ~~said~~ ~~the~~ opening portion is formed with a waved blade (corrugated) cutting tool ~~which~~ whose blade portion has a pitch of 0.1 mm.

The paper container as ~~claimed~~ in Claim 5 in accordance with a fifth aspect of the invention provides a paper container comprising:

15 a container main body in the form of a rectangular parallelepiped that accommodates a number of papers or the like, such as tissue papers, that are placed one upon another, being folded; and

20 an opening portion for ~~taking out said removing~~ the paper or the like that is formed approximately rectangularly as a whole on ~~the-a~~ top of the container main body, and is comprised of a pair of up and down movable, central flaps for ~~taking out~~ removing paper or the like, and pairs of side flaps which are formed symmetrically on both sides of the up and down movable flaps, with a cut being formed by cutting between ~~said~~ ~~the~~ pair of up and down movable flaps; between the respective pairs of side flaps; between the up and down movable flaps and the side flaps; and between ~~the-a~~ side edge of the side flaps and ~~the-an~~ upper face forming ~~the-a~~ top of the container main body, and a crease being

formed at the-respective rear ends of the pair of up and down movable flaps and the pairs of side flaps, wherein

the-respective cuts constituting said the opening portion are formed with a waved blade (corrugated) cutting tool which whose blade portion has a pitch of 0.1 mm to 3.0 mm.

5

The paper container as claimed in Claim 6 in accordance with a sixth aspect of the invention provides a paper container comprising:

a container main body in the form of a rectangular parallelepiped that
10 accommodates a number of papers or the like, such as tissue papers, that are placed one upon another, being folded; and

an opening portion for taking out said removing the paper or the like that is formed approximately rectangularly as a whole on the a top of the container main body, and is comprised of a pair of up and down movable, central flaps for taking out removing the
15 paper or the like, and pairs of side flaps which are formed symmetrically on both sides of the up and down movable flaps, with a cut being formed by cutting between said the pair of up and down movable flaps; between the-respective pairs of side flaps; between the up and down movable flaps and the side flaps; and between the a side edge of the side flaps and the an upper face forming the a top of the container main body, and a
crease being formed at the-respective rear ends of the pair of up and down movable
20 flaps, and the pairs of side flaps, wherein

the-respective cuts constituting said the opening portion are formed with a waved blade (corrugated) cutting tool which whose blade portion has a pitch of 0.1 mm.

25

According to the present invention, the-respective cuts for the up and down

movable flaps constituting said the opening portion, and the-respective cuts between the up and down movable flaps and the side flaps are provided with a waved blade or corrugated geometry which has a pitch of 0.1 to 3.0 mm, preferably, 0.1 mm, and thus, various high-performance paper containers can be provided which assure the-operability
5 in taking outremoving a paper or the like, such as a tissue paper, the-ability for the up and down movable flaps and the side flaps to hold a paper or the like, and the-sanitation based on the-a covering function of the side flaps, and eliminate the-a possibility of the-a user's fingers being accidentally injured in taking outremoving a paper or the like, such as a tissue paper, in opening or unsealing the paper container, and that of the paper or
10 the like, such as a tissue paper, being damaged when it is taken outremoved from the paper container.

In addition, the-a need for attaching a plastic film to the opening portion, as with said the conventional art is eliminated, which can reduce the-manufacturing cost, simplify the-operation of the-a user in the-disposal of the paper container, and yet
15 provide a paper container which is environmentally-conscious.

Brief Description Of The Drawings

FIG. 1 is a perspective view showing the-an appearance of a paper container according to an embodiment of the present invention;

20 FIG. 2 is a partially enlarged perspective view of the paper container according to the embodiment of the present invention;

FIG. 3 is a schematic drawing showing a punching die for forming a cut in the paper container according to the embodiment of the present invention;

25 FIG. 4 is a perspective view showing a waved blade cutting tool for forming a cut in the paper container according to the embodiment of the present invention;

FIG. 5 is a sectional view showing the-a condition before starting the-use of the paper container according to the embodiment of the present invention;

FIG. 6 is a sectional view showing the-a condition at the-a start of the-use of the paper container according to the embodiment of the present invention;

5 FIG. 7 is a sectional view showing the-a condition when a paper or the like is being taken-out~~removed~~ from the paper container according to the embodiment of the present invention;

10 FIG. 8 is a perspective view showing the-a condition when the paper or the like is being taken-out~~removed~~ from the paper container according to the embodiment of the present invention; and

FIG. 9 is a sectional view showing the-a condition after the-a first paper or the like has been taken-out~~removed~~ from the paper container according to the embodiment of the present invention.

15 Description Of The Preferred Embodiment

Here is a description of an embodiment of the present invention, but the present invention is not limited to ~~that~~this embodiment.

FIG. 1 is a perspective view showing the-an appearance of a paper container 1 according to one embodiment of the present invention, and the paper container 1 comprises a container main body 2 in the form of a rectangular parallelepiped that can accommodate a number of papers or the like P (see FIG. 5), such as tissue papers, that are placed one upon another, being folded; and an opening portion 10 for taking-out~~said~~removing the paper or the like P, that is formed approximately rectangularly as a whole on the-a top of the container main body 2, and is comprised of a pair of up and down movable, central flaps 3a, 3b for taking-out~~removing~~ paper or the like P, and pairs

of side flaps 4a, 4b, 4c, 4d which are formed symmetrically on both sides of the up and down movable flaps 3a, 3b.

As shown in FIG. 2, being enlarged, said—the opening portion 10 is configured by forming a-cuts 5 by cutting between said—the pair of up and down movable flaps 3a, 3b; between the—respective pairs of side flaps 4a, 4b, 4c, 4d; between the up and down movable flap 3a, 3b and the side flaps 4a, 4b, 4c, 4d; and further between the—a side edge of the side flaps 4a, 4b, the side flaps 4c, 4d, and the—an upper face 2a forming the top of the container main body 2, and a crease 6 as shown with a dotted line at the respective rear ends of the pair of up and down movable flaps 3a, 3b and the pairs of side flaps 4a, 4b, 4c, 4d.

As shown in FIG. 3 and FIG. 4, the—respective cuts 5 which constitute said—the opening portion 10 are created through a cutting process with forming dies that involves mounting a waved blade (corrugated) cutting tool 12, which—whose blade portion 11 has a pitch of 0.1 to 3.0 mm, preferably, 0.1 mm, to an upper die 13; loading the paper container 1 before assembling on a lower die 14; and dropping the upper die 13 toward the lower die 14.

As a result of this, said—the respective cuts 5 are provided with a minute blade geometry which has a pitch of 0.1 to 3.0 mm, preferably, 0.1 mm, corresponding to the blade portion 11 of the waved blade cutting tool 12. In other words, the cuts define opposing corrugated edges including crests and valleys with a pitch between adjacent crests being within a range of from 0.1mm to 3.0mm.

The rReasons why said—the respective cuts 5 are provided with a minute blade geometry which has a pitch of 0.1 to 3.0 mm, preferably, 0.1 mm, are the—a necessity of assuring ease of opening; preventing the—fingers from being injured in taking outremoving a—paper or the like P by operating the fingers; providing a sufficient

capability of holding the paper or the like P; and avoiding the taken out removed paper or the like P from being damaged when being contacted and engaged with the cuts.

In other words, if said the cuts 5 are provided with a minute blade geometry which has a pitch of under 0.1 mm, the a capability of holding the paper or the like P for preventing it from being dropped will be insufficient, and contrarily, if the pitch exceeds 5 3.0 mm, the a degree of engagement of the cuts with the taken out removed paper or the like P, and the resulting damage thereto, will be too high.

Said The creases 6 are formed by perforation, cutting with a reed, waved, or straight blade, scoring, or the like.

10 With the present invention, as a modification of the paper container 1 according to the embodiment as shown in said FIG. 1 and the like, the paper container 1 may be composed of a container body 2, and an opening portion 10 for taking out said removing paper or the like P, that is formed on the a top of the container body 2, and the opening portion 10 may be composed of a pair of up and down movable flaps 3a, 3b which are formed around a cut 5 in the a middle area; a pair of creases 6, 6 which are formed at the rear ends of the pair of up and down movable flaps 3a, 3b, i.e., in the areas opposite to said the cut 5 in the middle area; and cuts 5, 5 which are formed by connecting the right and left ends of said the cut 5 in the middle area with the right and left ends of said the pair of creases 6, 6, with the cuts constituting said the opening portion 10 being formed by using a waved blade cutting tool which whose blade portion 15 has a pitch in the range of 0.1 mm to 3.0 mm, preferably, 0.1 mm.

Next, with reference to FIG. 5 to FIG. 9, the a function of the paper container 1 according to the one embodiment of the present invention will be described.

Before the start of use of the paper container 1 according to the present embodiment, the pair of up and down movable, central flaps 3a, 3b for taking 25

~~outremoving~~ paper or the like P, and the pairs of side flaps 4a, 4b, and side flaps 4c, 4d are flat on the top of the container main body 2.

In order to ~~take out aremove~~ paper or the like P from the inside of the container main body 2, ~~the-a~~ user presses down the up and down movable flaps 3a, 3b by two fingers as shown in FIG. 6. By doing this, the up and down movable flaps 3a, 3b are folded down at the creases 6, and ~~the-a~~ top layer of paper or the like P is exposed, ~~. then~~ Then the user can pinch the first paper or the like P by two fingers, for example, and ~~take remove~~ it upward from the container main body 2.

FIG. 7 and FIG. 8 show that the first paper or the like P, such as a tissue paper, is being ~~taken outremoved~~ upward from the container main body 2.

When a-paper or the like P is ~~taken outremoved~~ upward, the up and down movable flaps 3a, 3b which are once folded down are inverted as the paper or the like P is moved upward, and folded up at the creases 6, being supported thereby, with the opposed cuts 5 contacting both surfaces of the first paper or the like P.

In this case, the pairs of side flaps 4a, 4b, and side flaps 4c, 4d are also folded up, and the opposed cuts 5 for these side flaps 4a, 4b and side flaps 4c, 4d are contacted with both surfaces of the first paper or the like P.

In thus taking the first paper or the like P upward from the container main body 2, the second paper or the like P, which is folded in conjunction with the first paper or the like P, is successively pulled upward, being interlocked with the first paper or the like P (this statement is also applicable to the third and subsequent papers or the like P).

Once the first paper or the like P is completely ~~taken outremoved~~ from the container main body 2, as shown in FIG. 9, ~~the-a~~ leading edge of the second paper or the like P is exposed in the opening portion 10 in the container main body 2, with the opposed cuts 5 for the up and down movable flaps 3a, 3b, the side flaps 4a, 4b, and ~~; the~~

side flaps 4c, 4d being contacted with both surfaces of the second paper or the like P, respectively.

In other words, the up and down movable flaps 3a, 3b, the side flaps 4a, 4b, and ; the side flaps 4c, 4d function not only as paper holders to prevent the paper or the like P 5 from being dropped, but also as covers to prevent dirt and dust, insects and the like from entering the inside of the container main body 2.

Such functions of the up and down movable flaps 3a, 3b, the side flaps 4a, 4b, and ; the side flaps 4c, 4d are maintained until the papers or the like P which are placed one upon another, being folded, in the container main body 2 are used one after another and 10 finally used up.

With the paper container 1 according to the present embodiment, the respective cuts 5 for the up and down movable flaps 3a, 3b, and the side flaps 4a, 4b, 4c, 4d in said 15 the opening portion 10 are provided with a blade geometry which has a pitch of 0.1 mm to 3.0 mm, preferably, 0.1 mm, and thus, various high-performance paper containers can be provided which assure excellent operability in taking outremoving a paper or the like P, such as a tissue paper, holdability for paper or the like, and sanitation, and yet 20 eliminate the-a possibility of the-a user's fingers being accidentally injured in taking outremoving a paper or the like, such as a tissue paper, in opening or unsealing the paper container 1, and that of the paper or the like, such as a tissue paper, being damaged when it is taken outremoved from the paper container 1.

In addition, with the paper container 1 according to the present embodiment, the-a need for attaching a plastic film to the opening portion as with said-the conventional art is eliminated, which can reduce the-manufacturing cost, and simplify the-operation of the-a user in disposal of the paper container 1, and yet a paper container which is 25 environmentally-conscious can be provided.

The paper container 1 according to the present embodiment can be applied not only as a container for tissue papers, but also as that for various thin papers for packaging foods and the like.

According to the present invention as described above in detail, a
5 high-performance paper container can be provided which can lower the manufacturing cost, assure operability in ~~taking out~~removing a paper or the like, such as a tissue paper, holdability for paper or the like, and sanitation, and yet eliminate the ~~a~~possibility of the a_user's fingers being accidentally injured and that of the paper or the like being damaged.

ABSTRACT OF THE DISCLOSURE

A paper container 1 ~~comprising~~ comprises: a container main body 2 in the form of a rectangular parallelepiped that accommodates a number of papers or the like, such as tissue papers, that are placed one upon another, being folded; and an opening portion 10 which is formed on ~~the~~ a top of the container main body 2, wherein respective cuts 5 for a pair of up and down movable flaps 3a, 3b, and pairs of side flaps 4a, 4b, 4c, 4d are formed with a waved blade (corrugated) cutting tool ~~which~~ whose blade portion has a pitch of 0.1 to 3.0 mm.

10